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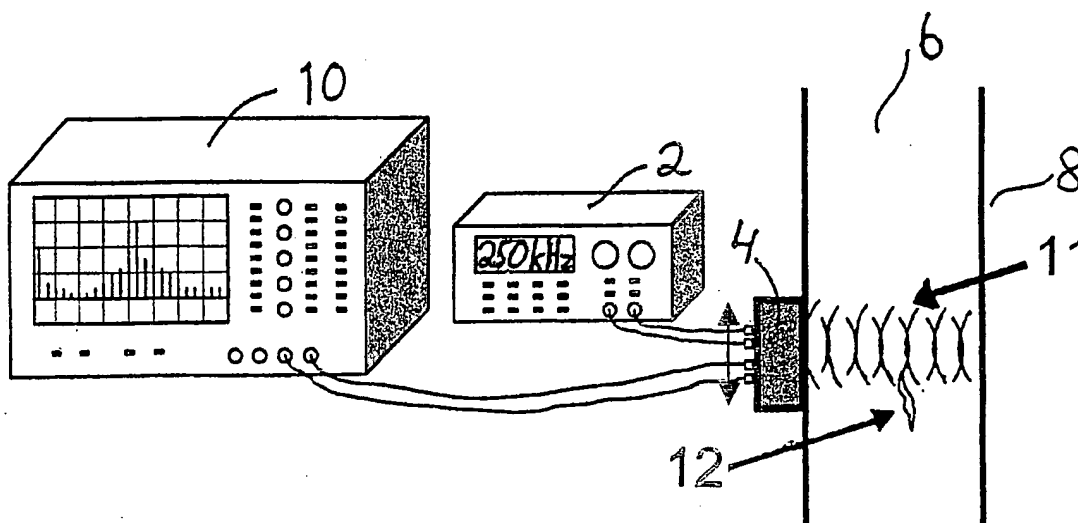
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[Continued on next page]

(54) Title: **NON-DESTRUCTIVE TESTING OF MATERIALS**



(57) Abstract: In a method of localising damages or defects in objects or in materials a standing wave is generated within the object (6) or in the material to be tested. This standing wave is substantially limited to a small area in the object or the material, between a vibration surface and another surface (8) in the object or in the material in order to detect damages or defects within said area of the object or the material from readings obtained when measuring on the standing wave and by using Slow Dynamics. A corresponding arrangement includes a signal source (2) which is connected to a transmitter (4) for generating a resonant sound wave within the object (6) or the material. A receiver (4) for receiving a measurement signal from the object or the material is connected to a measurement signal processing and analysing apparatus (10). The transmitter is adapted to generate the sound wave substantially in a small area in the object or the material, and the measurement signal processing and analysing apparatus is adapted to localise damages or defects in the object or in the material by using Slow Dynamics.



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